

## ABSTRACT

An object of the present invention is to determine a kind of a passenger, e.g., adult or child, without executing a complicated image processing, thereby controlling an unfolding of an air bag. The safety apparatus against an automobile clash extracts a head ellipse from an image outputted from an area sensor. The apparatus stores beforehand reference head ellipses of every possible kinds of passenger's heads. The extracted head ellipse of the present passenger is selected among the references. Then, a region including the extracted head ellipse is designated to a future processing region for searching the same passenger's head at a time to come. Thus, the passenger's head is recognized simply and rapidly, even when the passenger once moved outside the future processing region.

20

25